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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

LI et al

Serial No. 10/535,634

Filed: May 20, 2005



Atty. Ref.: 36-1901

TC/A.U.: Unknown

Examiner:

For: METHOD AND SYSTEM FOR GENERATING PANORAMIC  
IMAGES FROM VIDEO SEQUENCES

\* \* \* \* \*

October 13, 2005

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT**

Attention is directed to the attached UK and EPO Search Reports in a counterpart of this application (or one of related applications 10/535,420 or 10/535,621 and to a copy of each non-US patent document newly cited therein. A Form PTO-1449 is also attached.

Official consideration and citation of all identified documents is requested.

Also attached is a list of references identified by an inventor of at least one of these related cases. If a copy of any such reference is desired, please let the undersigned know and a copy will be provided if available.

Respectfully submitted,

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## INFORMATION DISCLOSURE

### CITATION

ATTY. DOCKET NO.

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Unknown



(Use several sheets if necessary)

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)**

	International Search Report dated 6 September 2004
	Irani et al., "Efficient Representations of Video Sequences and Their Applications", SIGNAL PROCESSING. IMAGE COMMUNICATION, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, nl, Vol. 8, No. 4, 1 May 1996, pages 327-351, XP000586005
	Smolic et al., "Long-Term Global Motion Estimation and its Application for Sprite Coding, Content Description, and Segmentation", IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS, FOR VIDEO TECHNOLOGY, IEEE INC., NEW YORK, US, Vol. 9, No. 8, December 1999, pages 1227-1242, XP0009333894
	Jones et al., "Building Mosaics from Video Using MPEG Motion Vectors", ACM MULTIMEDIA, PROCEEDINGS OF THE INTERNATIONAL CONFERENCE, NEW YORK, US, October 1999, pages 29-32, XP002272152

\*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

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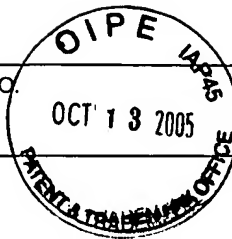
SERIAL NO.

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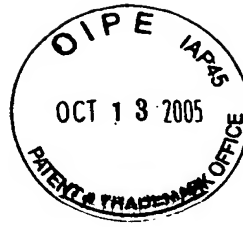


	Sawhney et al., "Model-Based 2D&3D Dominant Motion Estimation for Mosaicing and Video Representation", COMPUTER VISION, FIFTH INTERNATIONAL CONFERENCE ON CAMBRIDGE, MA, USA, IEEE COMPUT. SOC. 20 June 1995, pages 583-590, XP010147046
	UK Search Report of May 7, 2003
	International Search Report - 2 March 2004
	Tan et al., "Rapid Estimation of Camera Motion from Compressed Video With Application to Video Annotation", IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, IEEE INC. NEW YORK, US, Vol. 10, No. 1, February 2000, pages 133-146, ISSN: 1051-8215
	Rousseeuw, "Least Median of Squares Regression", JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION, AMERICAN STATISTICAL ASSOCIATION, NEW YORK, US, Vol. 79, No. 388, December 1984, pages 871-880, XP008024952, ISSN: 0162-1459
	Smolic et al., "Low-Complexity Global Motion Estimation from P-frame Motion Vectors for MPEG-7 Applications", PROCEEDINGS 2000 INTERNATIONAL CONFERENCE ON IMAGE PROCESSING (CAT. NO. 00CH37101), PROCEEDINGS OF 7 <sup>TH</sup> IEEE INTERNATIONAL CONFERENCE ON IMAGE PROCESSING, VANCOUVER, BC, CANADA 10-13 Sept. 2000, pages 271-274, Vol., 2, XP002272151
	Pilu, "On Using Raw MPEG Motion Vectors to Determine Global Camera Motion", PROC. SPIE - INT. SOC. OPT. ENG (USA), VISUAL COMMUNICATIONS AND IMAGE PROCESSING '98, SAN JOSE, Vol. 3309, 28 January 1998, pages 448-459, XP001176676
	Odone et al., "Layered Representation of A Video Shot with Mosaicing", PATTERN ANALYSIS AND APPLICATIONS, 2002, Springer-Verlag, UK, Vol. 5, No. 3, August 20002, pages 296-305, XP002272153, ISSN: 1433-7541
	Wiegand et al., "Multiple Reference Picture Video Coding Using Polynomial Motion Models", VISUAL COMMUNICATIONS AND IMAGE PROCESSING '98, SAN JOSE, CA, 28-30 Jan. 1998, Vol. 3309, pages 134-145, XP002272154, Proceedings of the SPIE - The International Society for Optical Engineering, 1997, SPIE-Int. Soc. Opt. Eng. USA, ISSN: 0277-786X
	Ben-Ezra et al., "Real-Time Motion Analysis with Linear Programming", COMPUTER VISION AND IMAGE UNDERSTANDING, ACADEMIC PRESS, SAN DIEGO, CA. US, Vol. 78, NO. 1, April 2000, Pages 32-52, XP004439285, ISSN: 1077-3142
	Peleg et al., "Panoramic Mosaics by Manifold Projection", COMPUTER VISION AND PATTERN RECOGNITION, 1997, PROCEEDINGS, 1997 IEEE COMPUTER SOCIETY CONFERENCE ON SAN JUAN, PUERTO RICO 17-19, June 1997, Los Alamitos, CA, USA, IEEE COMPUT. SOC., US, 17 June 1997, pages 338-343, XP010237545
	Ad-Hoc Group on Core Experiments on Error Resilience Aspects, "Description of Error Resilient Core Experiments", ISO-IEC JTC1-SC29-WG11 N1808, July 25, 1997, pages 1-32
	Costa et al., "A VLSI Architecture for Hierarchical Motion Estimation", IEEE TRANSACTIONS ON CONSUMER ELECTRONICS, Vol. 41, No. 2, May 1, 1995, pages 248-257
	Irani et al., "Video Indexing Based on Mosaic Representations", Proceedings of the IEEE, Vol. 86, No. 5, May 1998, pages 905-921
	Vemuri et al., "Reliable and Efficient Image Registration", Technical Report UF-CISETR97-019, Online! 1997, URL:citeseer.ist.psu.edu/vemuri97reliable, pages 1-6
	International Search Report - 3 September 2004

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## References

- [1] F. Hampel, E. Ronchetti, P. Rousseeuw, and W. Stahel. Robust Statistics. John Wiley & Sons Inc, 1986.
- [2] P. J. Huber. Robust Statistics. John Wiley & Sons Inc, 1981.
- [3] M. Irani and P. Anandan. Video indexing based on mosaic representations. Proceedings of the IEEE, 86(5):905-921, 1998.
- [4] R. Jones, D. DeMenthon, and D. Doermann. Building mosaics using mpeg motion vectors. In ACM Multimedia, 1999.
- [5] P. Meer, D. Mintz, A. Rosenfeld, and D. Y. Kim. Robust regression methods for computer vision: a review. International Journal of Computer Vision, 6(1):59-70, 1991.
- [6] P. Meer, C. V. Stewart, and D. E. Tyler. Robust computer vision: an interdisciplinary challenge. Computer Vision and Image Understanding, 78:1-7, 2000.
- [7] J. Meng and S. Chang. CVEPS - a compressed video editing and parsing system. In ACM Multimedia, 1996.
- [8] S. Peleg and J. Herman. Panoramic mosaics by manifold projection. In IEEE Conference on Computer Vision and Pattern Recognition, 1997.
- [9] M. Pilu. On using raw mpeg motion vectors to determine global camera motion. In SPIE Electronic Imaging Conference, San Jose, 1998.
- [10] P.J.Rousseeuw. Least median of squares regression. Journal of The American Statistical Association, 79:871-880, 1984.
- [11] H. Sawhney, S. Ayer, and M. Gorkani. Model-based 2D&3D dominant motion estimation for mosaicing and video representation. In IEEE International Conference on Computer Vision, Cambridge, MA, USA, 1995.
- [12] A. Smolic, M. Hoeynck, and J.-R. Ohm. Low-complexity global motion estimation from P-frame motion vectors for MPEG-7 application. In IEEE International Conference on Image Processing, Vancouver, Canada, September 2000.
- [13] Y. Tan, D. Saur, and S. Kulkarni. Rapid estimation of camera motion from compressed video with application to video annotation. IEEE Transactions on Circuits and Systems for Video Technology, 10(1):133-146, 2000.